

REMARKS

Favorable reconsideration of this application in view of the previous amendments and following remarks is respectfully requested.

Claim 1-6 and 9-15 are pending. By this Amendment, claims 1, 12 and 14 are amended and new claim 15 is added. No new matter is added by any of the amendments. Support for the amendments can be found in Applicant's as-filed specification beginning at the paragraph starting at line 10 of page 24.

Applicants appreciate the courtesies extended to Applicants' representative during the January 13, 2008 personal interview.

The October 22, 2007 Office Action objects to claims 1-6 and 9-14.

The comment at the top of page two of the Official Action concerning the means plus function recitation set forth in the claims is not readily understood. Here, the Official Action comments that the claim language reciting the road surface obtaining means etc. does not properly invoke the sixth paragraph of 35 U.S.C. § 112 because the claims go on to recite structure sufficient to perform the claimed function. It is not at all clear what structure the Official Action is referring to in this regard as the wording in Claim 1 uses the typical means plus function wording. Section 2181 of the Manual of Patent Examining Procedure states that a means plus function recitation will be interpreted as such unless the claim element is modified by sufficient structure, material or acts for achieving the specific function.

Paragraph 1 of the Official Action also refers to other language in the claims of this application and comments that such wording does not properly invoke 35 U.S.C. §112 6th paragraph. Once again, it is respectfully submitted that this position is without basis as the claims use the proper means plus function format. As such,

these recitations are entirely proper and must be considered in the context of assessing the patentability of the claimed subject matter.

In the event the Examiner still has concerns about this matter, the Examiner is kindly asked to identify the structure which is believed to negate the means plus function recitation.

The Office Action rejects claims 1-6 and 9-14 under 35 U.S.C. §102(e) over U.S. Patent No. 7,003,389 to Lu et al. This rejection is respectfully traversed.

The subject matter of this application pertains to a control device for a vehicle that takes into account the cant amount of the road surface on which the vehicle is running. As set forth in independent Claim 1, the vehicle control device comprises road surface obtaining means for obtaining the road bank angle of the road surface on which the vehicle is running in the vehicle body roll direction. The vehicle control device also comprises determination means for determining whether the obtained road bank angle itself is greater than a predetermined value or not. A specific process executing means starts a specific process to restrain the roll angle of the vehicle from increasing based on only the determination that the obtained road bank angle itself is greater than the predetermined value.

Lu et al. discloses a system for determining a body-to-road roll angle. *Lu et al.* states that this system can be used in conjunction with a yaw control system, a rollover control system or a deployment device such as an airbag or a roll bar. *Lu et al.* describes that the disclosed system initially determines a first body-to-road roll angle $\theta_{b_to_r-1}$ as illustrated in step 90 of Fig. 6. This first body-to-road roll angle is determined as discussed in column 10 of *Lu et al.* based on the wheel departure angle θ_{wda} and the relative roll angle θ_{xr} generally shown in Fig 2 (i.e., $\theta_{b_to_r-1} = \theta_{wda} +$

θ_{xr}). Thereafter, as shown in step 92 of Fig. 6 and discussed near the bottom of column 10 of *Lu et al.*, the system determines a second body-to-road roll angle $\theta_{b_to_r-2}$. This determination of the second body-to-road roll angle is based on $\theta_{ref\ bank}$ and not the road bank angle as discussed in col. 11 of *Lu et al.*, because of the difficulty of accurately computing the road bank angle. Using these calculated values of the first and second body-to-road roll angles $\theta_{b_to_r-1}$, $\theta_{b_to_r-2}$, the system in *Lu et al.* determines a final body-to-road roll angle as noted in step 94 of Fig. 6 and as discussed near the bottom of column 12 of *Lu et al.* That is, the final body-to-road roll angle $\theta_{b_to_r}$ is calculated as $\theta_{b_to_r} = \beta * \theta_{b_to_r-1} + (1 - \beta) * \theta_{b_to_r-2}$. At the bottom of column 12, *Lu et al.* describes that, based on the final body-to-road roll angle, at least one of the safety systems 38 shown in Fig. 4A (the airbag 40, the active braking system 41, the active front steering system 42, the active rear steering system 43, the active suspension system 44 and the active anti-roll bar system) is controlled.

One difference between the claimed vehicle control device and the system described in *Lu et al.* is that the claimed vehicle control device comprises determination means for determining whether the obtained road bank angle itself is greater than a predetermined value or not and specific process executing means for starting a specific process for restraining the roll angle of the vehicle from increasing based on only the determination that the obtained road bank angle itself is greater than the predetermined value. *Lu et al.* does not describe that the disclosed system compares the road bank angle itself with a predetermined value and does not disclose that, based on only the determination that the road bank angle itself is greater than a predetermined value, the system starts a specific process for

restraining the roll angle of the vehicle from increasing. Rather, *Lu et al.* describes using the road bank angle $\theta_{\text{ref bank}}$ to calculate the second body-to-road roll angle $\theta_{\text{b_to_r-2}}$, using the second body-to-road roll angle $\theta_{\text{b_to_r-2}}$ to determine the final body-to-road roll angle $\theta_{\text{b_to_r}}$, and then controlling at least one of the safety systems based on the final body-to-road roll angle. Thus, *Lu et al.* cannot anticipate the claimed vehicle control device recited in independent Claim 1.

The dependent claims in this application are allowable at least by virtue of their dependence from allowable independent Claim 1. For example, dependent claims 12 and 14 each recite, in combination with other claimed features, a specific process being changed in sequence as the amount of time during which the obtained road bank angle itself continues to be greater than the predetermined value becomes long. New dependent claim 15 recites the road surface obtaining means is configured to obtain the road bank angle when the vehicle is running substantially straight. Such features are not disclosed in *Lu et al.*

Early and favorable action with respect to this application is respectfully requested.

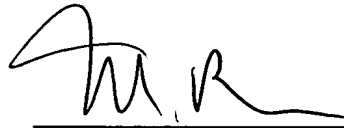
Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: April 22, 2008

By:

A handwritten signature in black ink, appearing to be 'M. Schneider', written over a horizontal line.

Matthew L. Schneider
Registration No. 32814

Michael Britton
Registration No. 47260

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620